

Remarks

Claims 1, 5, 8, 16, 20, 23, 31 and 34 have been amended.

The Examiner has rejected applicants' claims 1, 3, 5, 8-12, 16, 18, 20, 23-27 and 31-34 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner has argued that the limitation "wherein the weight value increases as the ratio increases" in applicants' claims 1, 16, 31 and 34 raises new matter not supported by the original disclosure. In order to avoid this rejection, applicants have amended applicants' independent claims 1, 16, 31 and 34 to delete this limitation, thereby obviating the Examiner's rejection.

The Examiner has also argued that the limitation "calculating image similarity between the search image and each of the plurality of images on the basis of the calculated weighted similarity of each of the segmented regions" is not disclosed in the cited location (page 15, lines 13-21) of applicants' specification. Applicants have amended claim 1 to recite "a second calculation step of calculating image similarity between the search source image and each of the plurality of images stored in the storage means by comparing the plurality of segmented regions of the search source image and segmented regions of each of the plurality of images stored in the storage means using the weight values set in the setting step." Applicants' claims 16, 31 and 34 have been amended to recite a similar feature. This feature of applicants' claims is discussed on page 9, lines 17-20, page 15, lines 18-21, page 16, lines 4-9, and page 21, lines 14-26 which disclose calculating similarity based on feature amounts of each segment in a source image (page 9, lines 17-20), multiplying the similarity by a weight value set for each region, i.e. 100 weight value for important region or 25 weight value for unimportant region (page 15, lines 18-21 and page 21, lines 14-26), and calculating inter-

image distance between the source image and stored images using the similarity values and weight values (page 16, lines 4-9).

It is, therefore, submitted that applicants' amended independent claims 1, 16, 31 and 34, as well as their respective dependent claims, are supported by an enabling disclosure and thus satisfy the provisions of 35 USC § 112, first paragraph.

The Examiner has also rejected applicants' claims 1, 5, 8-12, 16, 18, 20, 23-27 and 31-34 under 35 U.S.C. §103(a) as being unpatentable over the Lipson, et al. (US 6,463,426) patent in view of the Sato, et al. (US 6,246,804) patent. With respect to applicants' claims, as amended, this rejection is respectfully traversed.

Applicants' independent claims 1, 16, 31 and 34 have been amended to better define applicants' invention. More particularly, applicants' amended claim 1 has been now been amended to recite a segmenting step of segmenting the search source image into a plurality of segmented regions, a first calculating step of calculating, for each of the plurality of segmented regions, a ratio of a size of the designated arbitrary region included in the segmented region to a size of said arbitrary region, a setting step of setting a weight value for each of the plurality of segmented regions based on each ratio calculated in the first calculating step, a second calculation step of calculating image similarity between the search image source and each of the plurality of images stored in the storage means by comparing the plurality of segmented regions of the search source image and segmented regions of each of the plurality of images stored in the storage means using the weight values set in the setting step and an acquisition step of acquiring an image as a search result from the plurality of images on the basis of the image similarity calculated in the second calculation step. Applicants' independent claims 16, 31 and 34 have been similarly amended. The feature of

“setting a weight value of reach of the plurality of segmented regions based on each ratio calculated in the first calculating step” is disclosed in FIG. 11 and on page 21, lines 2-7 of applicants’ specification.

The constructions recited in applicants’ independent claims 1, 16, 31 and 34 are not taught or suggested by the cited art of record. More particularly, the Examiner has acknowledged that the Lipson, et al. patent does not teach the setting step of setting a weight value in units of segmented regions obtained by segmenting the image into a plurality of segmented regions, based on a size of the designated arbitral region included in the segmented region. However, the Examiner has argued that the Sato, et al. patent teaches setting a weight value (size information of arbitral region) (FIG. 4, element 302 and FIG. 47, S211) based on a size of the designated arbitral region included in the segmented region and specifically the weight value (calculating total of areas of found regions) depends on the ratio of sizes (the ratio of area SP over the area Sc) (FIG. 52, S235-S236).

Applicants have reviewed the cited Figures and passages of the Sato, et al. patent referred to by the Examiner and there is nothing taught or suggested in the Sato, et al. patent of setting a weight value for each of the plurality of segmented regions based on each ratio of a size of a designated arbitrary region included in the segmented region to a size of the arbitrary region, calculated in the first calculating step. In particular, the FIG. 4 of the Sato, et al. patent cited by the Examiner fail to teach or suggest setting a weight value of each segmented region of the source image. Namely, FIG. 4 of the Sato, et al. patent discloses a size information discrimination section 302 which compares the vertical and horizontal dimensions of the designated image and of the image data (Col. 8, lines 17-25), while FIG. 47 of the Sato, et al. patent discloses determination of a block size to be searched for, and not the

weight value of each segmented region of the search source image, based on the height, width and area of the designated image (Col. 25, lines 57-59; Col. 26, lines 5-19). Thus, FIGS. 4 and 47 of the Sato, et al. patent do not disclose or suggest setting a weight value for each of the segments in the designated image.

Moreover, the Sato, et al. patent fails to teach or suggest calculating a ratio of a size of the designated arbitrary region included in the segmented region to a size of the arbitrary region and setting a weight value for each of the plurality of segmented regions based on each ratio. More particularly, FIG. 52 of the Sato, et al. patent, cited by the Examiner, merely teaches acquiring a ratio of total areas of similar regions in a stored image (Sp) to an area of a designated region (Sc) so as to determine the extent of similarity between the designated region and the stored image. FIG. 52; Col. 28, line 57 – Col. 29, line 10. The ratio calculation in the Sato, et al. patent is performed by comparing the stored image areas with the designated image, and not by comparing the area of the arbitrary region in each of the segments of the source image with the total area of the arbitrary region.

It is therefore evident from the above, that the portions of the Sato, et al. patent cited by the Examiner do not teach or suggest calculating, for each of the plurality of segmented regions, a ratio of a size of the designated arbitrary region included in the segmented region to a size of said arbitrary region and setting a weight value for each of the plurality of segmented regions based on each ratio calculated.

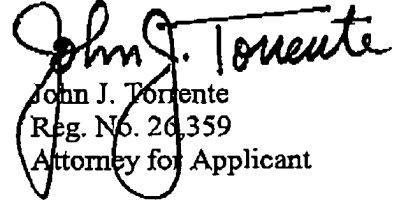
Applicants' amended independent claims 1, 16, 31, and 34, and their respective dependent claims, each of which recites such features thus patentably distinguish over the combination of the Lipson, et al and the Sato, et al. patents.

In view of the above, it is submitted that applicants' claims, as amended, patentably distinguish over the cited art of record. Accordingly, reconsideration of the claims is respectfully requested.

Dated: December 27, 2004

Respectfully submitted,

COWAN, LIEBOWITZ & LATMAN, P.C.
1133 Avenue of the Americas
New York, NY 10036
(212) 790-9273


John J. Torrente
Reg. No. 26,359
Attorney for Applicant